Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 15 (Canceled)

16. (Currently Amended) A method of determining whether a small molecule is an activator or an inhibitor of insulin receptor substrate 2 (IRS2) which comprises:

a) providing a test cell which overproduces IRS2 and exhibits an increase in binding of an IRS2-binding protein to IRS2, relative to a control cell which produces IRS2 at a lower level, or does not produce the protein at all, and which exhibits a lesser amount of binding of said protein to IRS2;

b) causing the small molecule to come into contact with IRS2 or a complex comprising IRS2 and other cellular proteins in the cell~~, wherein said small molecule cannot bind to the non-IRS2 proteins in the absence of IRS2~~; ~~and~~

c) examining the test cell for modulation of an IRS2-mediated cellular signal, wherein the modulation is greater in the test cell as compared to the control cell~~,~~ ; and

d) determining that the small molecule binds to IRS2 or to a complex comprising IRS2 and other cellular proteins and cannot bind to the non-IRS2 proteins in the absence of IRS2;

thereby identifying the small molecule as an activator or an inhibitor of IRS2.

17. (Canceled)

18. (Currently Amended) The method of Claim 16, wherein the test cell is obtained by introducing a nucleic acid encoding ~~the protein of interest~~ insulin receptor substrate 2 (IRS2) into a host cell, said nucleic acid being under the control of a promoter functional in the host cell, whereby said nucleic acid is expressed.

19. (Currently Amended) The method of Claim 16, wherein the nucleic acid is introduced into the ~~host~~ test cell by means of a genetic vector into which the gene has been inserted.

20. (Currently Amended) The method of Claim 16, wherein the nucleic acid is introduced into the ~~host~~ test cell by means of a retroviral vector.

21. (Currently Amended) The method of Claim 16, wherein the ~~host~~ control cell essentially does not produce ~~the protein~~ insulin receptor substrate 2 (IRS2).

22. (Currently Amended) The method of Claim 16, wherein the ~~host~~ test cell is a myeloid cell.

23. (Currently Amended) The method of Claim 22, wherein the ~~host~~ test cell is an FDC-P1 cell.

24. (Previously Presented) The method of Claim 16, wherein the modulation of an IRS2-mediated cellular signal is determined by measuring the effect on a component of the IRS2 signaling cascade.

25. (Withdrawn) A method of determining whether a small molecule is an activator or an inhibitor of insulin receptor substrate 1 (IRS1) which comprises:

a) providing a test cell which overproduces IRS1 and exhibits an increase in binding of an IRS1-binding protein to IRS1, relative to a control cell which produces IRS1 at a lower level, or does not produce the protein at all, and which exhibits a lesser amount of binding of said protein to IRS1;

b) causing the small molecule to come into contact with IRS1 or a complex comprising IRS1 and other cellular proteins in the cell, wherein said small molecule cannot bind to the non-IRS1 proteins in the absence of IRS1; and

c) examining the test cell for modulation of an IRS1-mediated cellular signal, wherein the modulation is greater in the test cell as compared to the control cell, thereby identifying the small molecule as an activator or an inhibitor of IRS1.

26. (Withdrawn) A method of identifying a small molecule capable of increasing the level of expression from an insulin receptor substrate 1 (IRS1) promoter in a mammalian cell which comprises:

a) providing a test cell which contains said IRS1 promoter operably linked to a reporter gene such that increased expression of the IRS1 promoter sequence using a substance known to be capable of upregulating the endogenous IRS1 gene results in an increase in reporter protein levels;

b) causing said small molecule to come into contact with IRS1 or a complex comprising IRS1 and other cellular proteins, wherein said small molecule cannot bind to the non-IRS1 proteins in the absence of IRS1; and

c) determining whether an increase in reporter protein level in the test cell has occurred, thereby identifying the small molecule as capable of increasing expression from an IRS1 promoter.

27. (New) A method of determining whether a small molecule is an activator or an inhibitor of insulin receptor substrate 2 (IRS2), wherein said small molecule binds to IRS2 or to a complex comprising IRS2 and other cellular proteins and cannot bind to the non-IRS2 proteins in the absence of IRS2, which comprises:

a) providing a test cell which overproduces IRS2 and exhibits an increase in binding of an IRS2-binding protein to IRS2, relative to a control cell which produces IRS2 at a lower level, or does not produce the protein at all, and which exhibits a lesser amount of binding of said protein to IRS2;

b) causing the small molecule to come into contact with IRS2 or a complex comprising IRS2 and other cellular proteins in the cell; and

c) examining the test cell for modulation of an IRS2-mediated cellular signal, wherein the modulation is greater in the test cell as compared to the control cell; thereby identifying the small molecule as an activator or an inhibitor of IRS2.